

Tucker
ENERGY SERVICES

PHASED INDUCTION

SHALLOW FOCUS SP LOG

Company RUNNING FOXES PETROLEUM Well HOLEMAN #15-23C-3 Field WILDCAT County BOURBON State KANSAS Country USA API No. 15-011-24215-00-00		File No : TUL-58790 Company : RUNNING FOXES PETROLEUM Well : HOLEMAN #15-23C-3 Field : WILDCAT County : BOURBON State : KANSAS Country : USA API No : 15-011-24215-00-00	
Location : 165' FSL & 2475' FEL SW SW SW SE		LSD : Sect : 23 Twp : 25S Rge : 21E	
Permanent Datum:	GL	Elevations:	
Drilling Measured From:	GL	KB 0.00	Services:
Log Measured From:	GL	DF 0.00	CNT
Above Permanent Datum:	0.00 Ft	GL 1086.00	LDT
Date	04-19-2013		
Run Number	1		
Depth--Driller	910.0	Ft	
Depth--Logger	910.0	Ft	
First Reading	909.0	Ft	
Last Reading	20.0	Ft	
Casing--Driller	20.0	Ft	
Casing--Logger	20.0	Ft	
Bit Size	6.750	In	
Casing Size	8.625	In	
Hole Fluid Type	FRESH		
Density	0.0		
Fluid Loss	0.0		
PH/Viscosity	0.0	0.0	
Sample Source	MEASURED		
RM@Measured Temp.	10.000	@ 60 F	
RMF@Measured Temp	8.500	@ 60 F	
RMG@Measured Temp.	11.500	@ 60 F	
Source RMF/RMC	CALCULATED/CALCULATED		
RM@BHT	7.610	@ 81 F	
Time Circulation Stopped			
Max Recorded Temp.	81	F	
Equipment/Base	TRK-125	TULSA	
Recorded By	R. FRANKLIN		
Witnessed By	K. HODGES		

The customer is hereby warned that by providing the log data herein, T. E. S. does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. T. E. S. does not guarantee or warrant either expressly or impliedly, the accuracy of any interpretation of log data, conversion of log data to physical rock parameters or recommendations which may be given by T. E. S. personnel. Any interpretation, conversion or recommendation is not part of the consideration for the agreement between the parties and is not part of any part of the charge by T. E. S. for its services. Any user of the log data is warned that said user is not entitled to rely on interpretations, conversions or recommendations as aforesaid.

Bitsize Intervals		Casing Strings			
Size (In)	Bottom (Ft)	Size (In)	Weight (Lbs)	Bottom (Ft)	Top (Ft)
6.750	910.00	8.625	32.00	20.00	0.00

Run Number	1	
Date	04-19-2013	
Date/Time On Bottom	04-19-2013 19:00	
Depth to Fluid	48.0 Ft	
Salinity	0.000	
RMF@BHT	0.000 @ 81 F	
RMC@BHT	8.750 @ 81 F	

Run Number 1

Comments

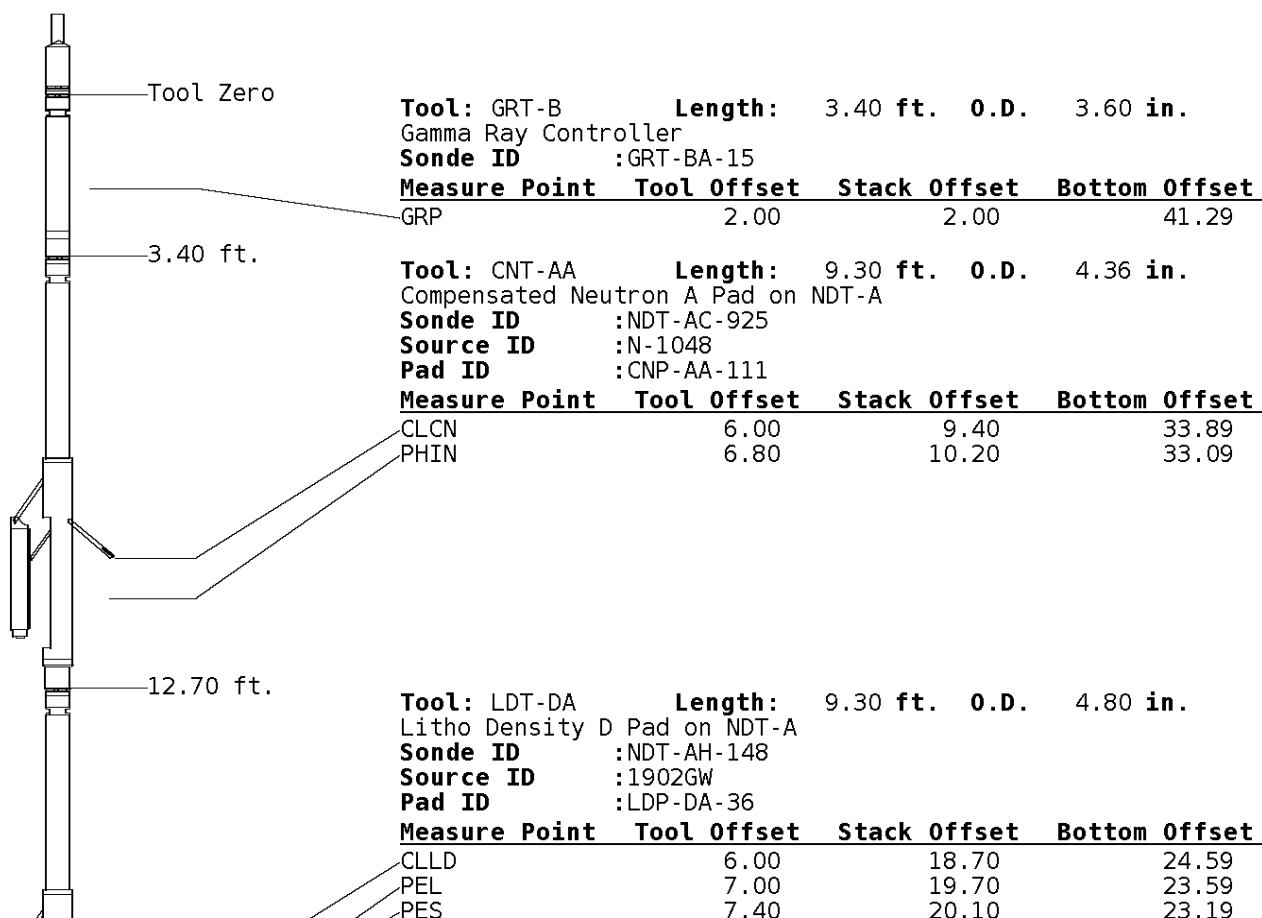
ALL PRESENTATIONS AS PER CUSTOMER REQUEST.
 GRT, CNT, LDT, AND PIT RUN IN COMBINATION.
 CALIPERS ORIENTED ON X-Y AXIS.
 2.71 G/CC USED TO CALCULATE POROSITY.
 ANNULAR HOLE VOLUME CALCULATED USING 4.5" PRODUCTION CASING.
 FLUID LEVEL AT 48'

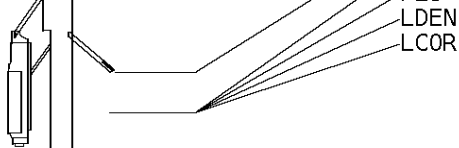
GRT: GRP
 CNT: PHIN, CLCNIN
 LDT: PORL, LCORN, LDENN, PECLN, CLLDIN
 PIT: ILD, ILM, SFLAEC, SPU, CIRD

OPERATORS:
 R. SAMS

Tool String Schematic

Total Tool Length - 43.29 ft.
Maximum Outside diameter - 4.80 in.
Net Weight in Air - 743.00 lbs.





7.20	19.90	23.39
7.20	19.90	23.39

22.00 ft.

Tool: PIT-CA **Length:** 21.29 ft. **O.D.** 3.62 in.
 Phased Dual Induction
Sonde ID :PIT--AB-16

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.73	30.73	12.56
ILM	9.90	31.90	11.39
SFLU	17.29	39.29	4.00
SP	20.41	42.41	0.88

LWT 43.29 ft.

Well File: RUN_HOL_15-23C-3_APR_19_STK

Scale: 1:600 **Format:** DIL-600

Segment: V1.D1.S6 MAIN

Acquired: 2013-04/19 19:22 3.3.0-11923

Reference: 0

Processed: 2013-04/19 20:38 3.3.0-11923

TENSION
LBS

10000 0

DEEP INDUCTION
OHMM

0.0 500.0
0.0 50.0

SPONTANEOUS POTENTIAL
mV

→ | ← 30

SHALLOW FOCUSED RESISTIVITY
OHMM

0.0 500.0
0.0 50.0

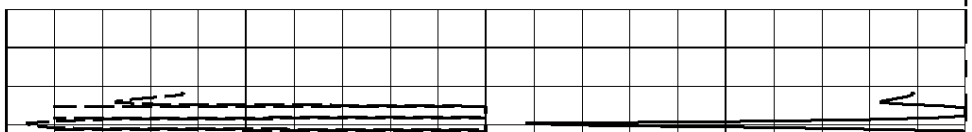
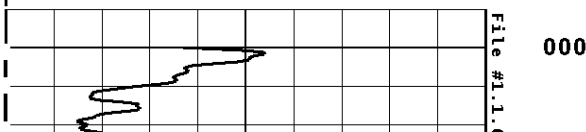
GAMMA RAY
API UNITS

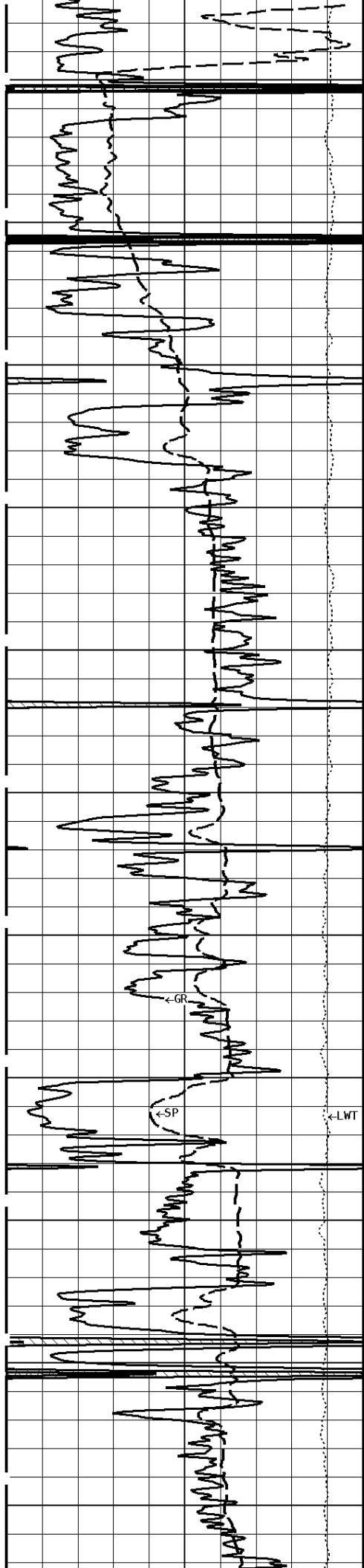
200 0 400 200

DEEP CONDUCTIVITY
MMHO

2000 1000 1000 0

1:600 MAIN SECTION





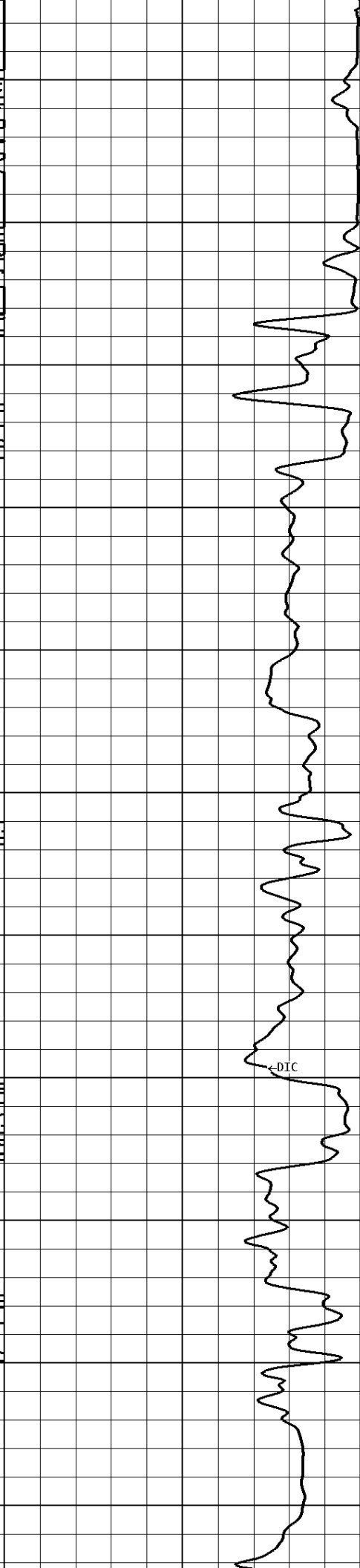
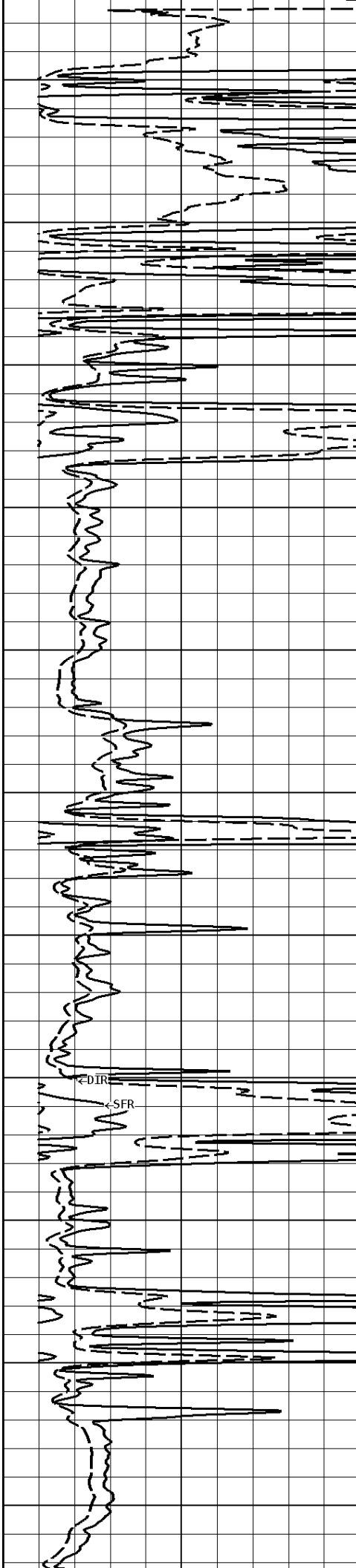
100

200

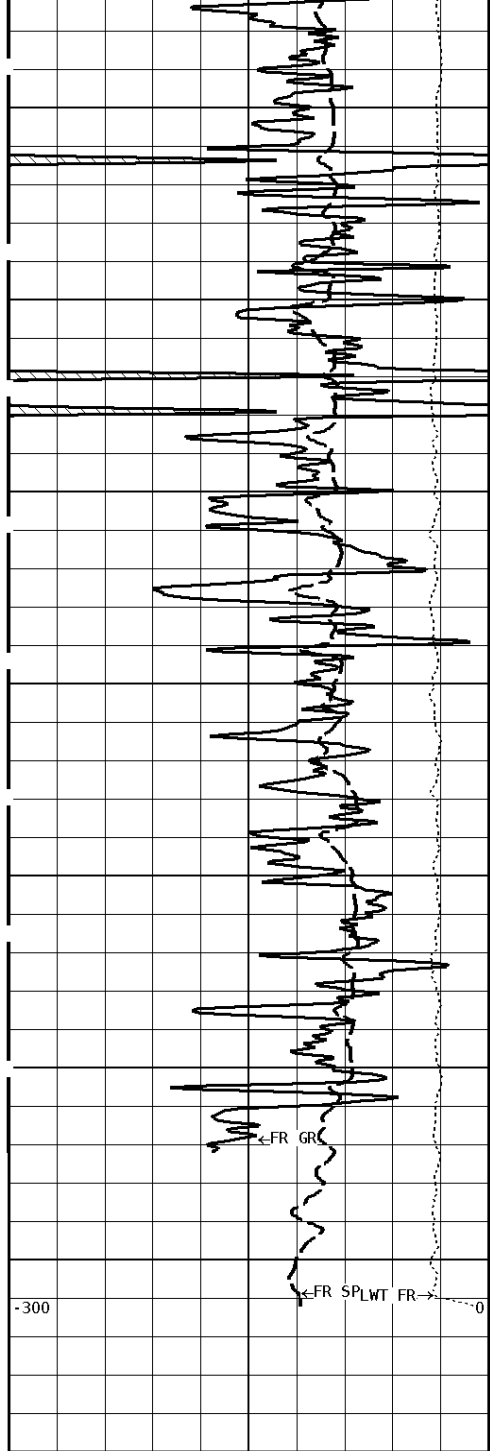
300

400

500



←DIC



600

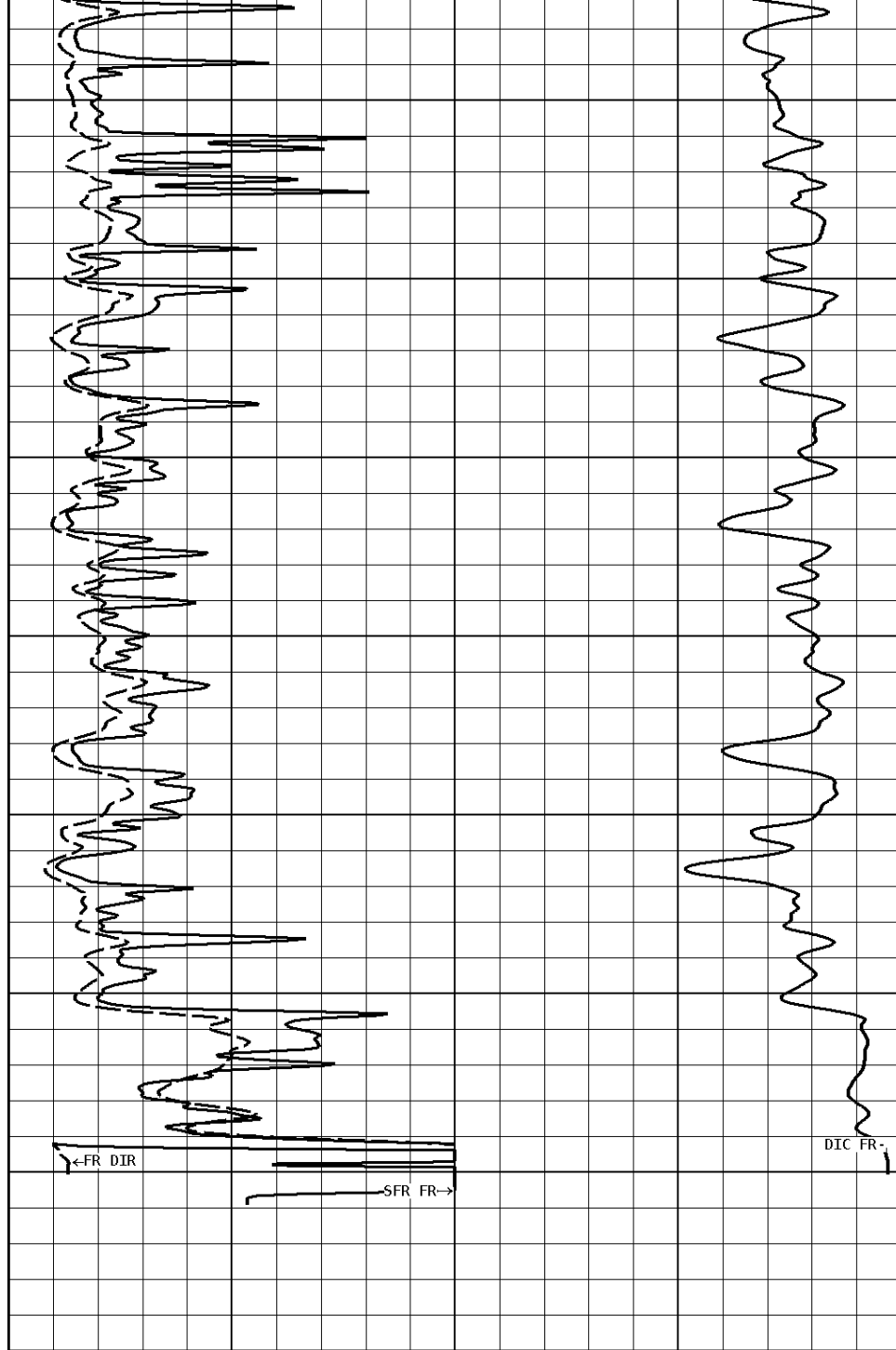
700

800

900

910

1:600 MAIN SECTION



GAMMA RAY
API UNITS

200 0 400 200

SPONTANEOUS POTENTIAL
mV

→ ← 30

TENSION
LBS

10000 0

DEEP CONDUCTIVITY
MMHO

2000 1000 1000 0

SHALLOW FOCUSED RESISTIVITY
OHMM

0.0 500.0
0.0 50.0

DEEP INDUCTION
OHMM

0.0 500.0
0.0 50.0

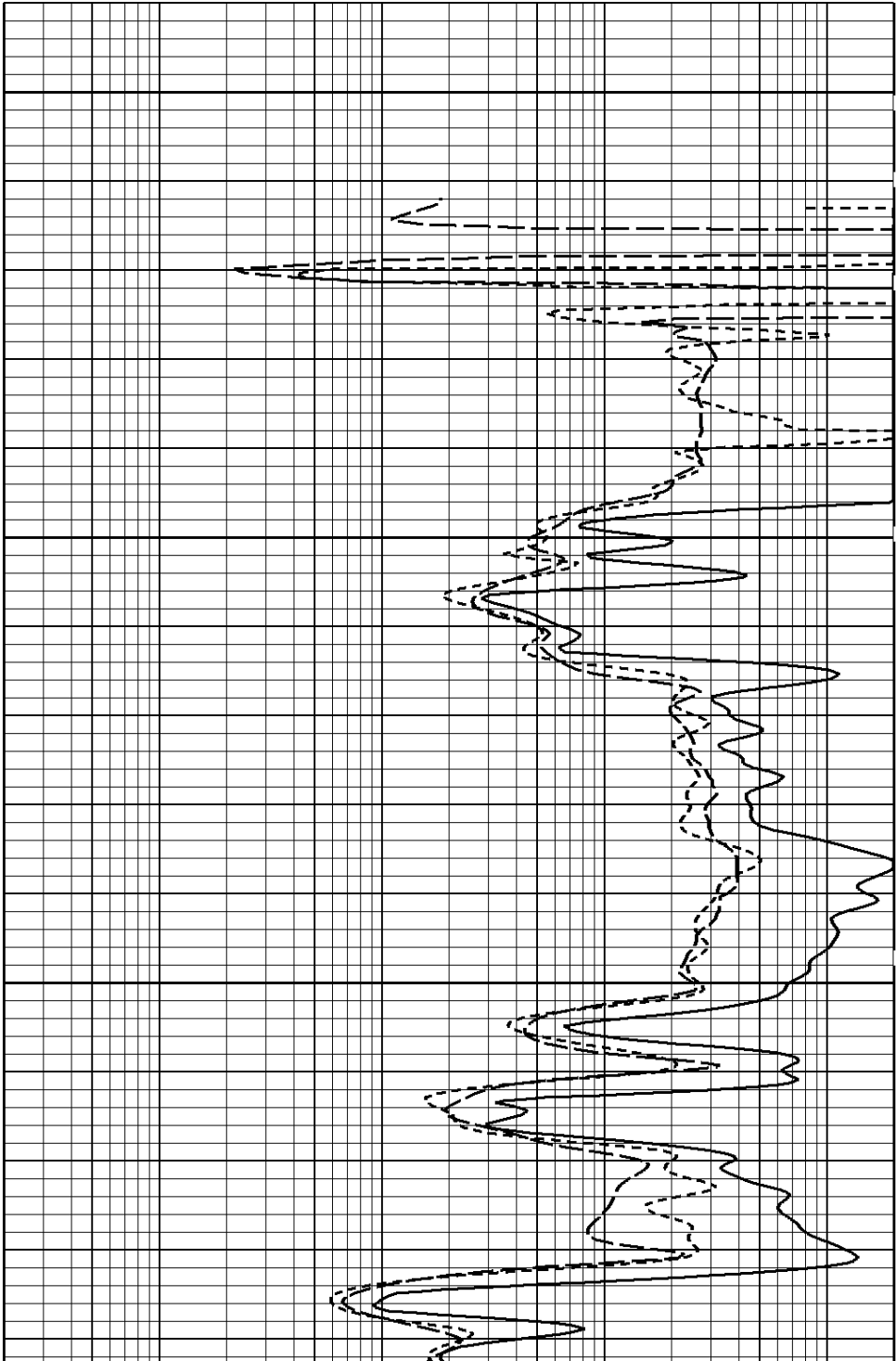
SPONTANEOUS POTENTIAL mV → ← 30		DEEP INDUCTION OHMM 0.2 ----- 2000.0
TENSION LBS 10000 ----- 0		MEDIUM INDUCTION OHMM 0.2 ----- 2000.0
GAMMA RAY API UNITS 200 0 400 200		SHALLOW FOCUSED RESISTIVITY OHMM 0.2 ----- 2000.0

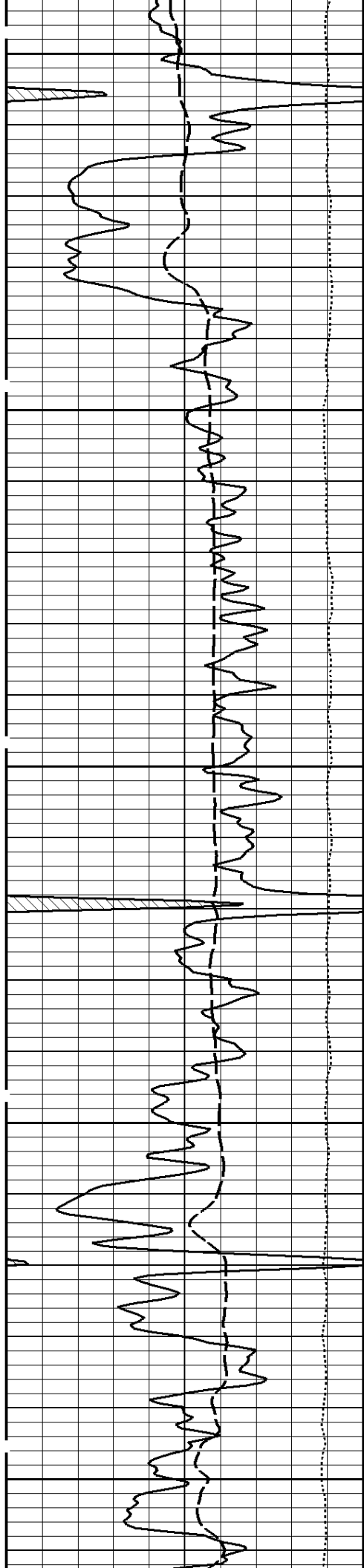
1:240 MAIN SECTION



000

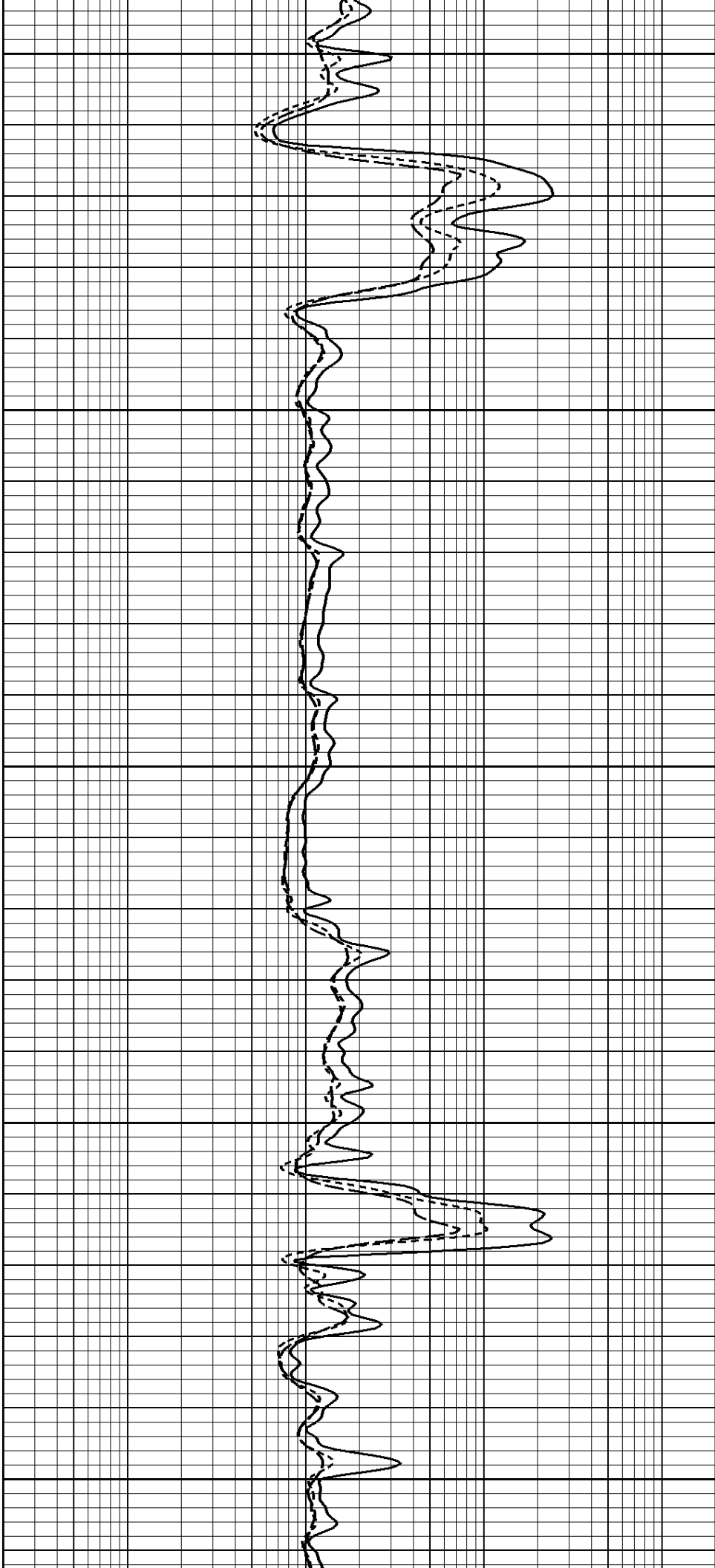
100

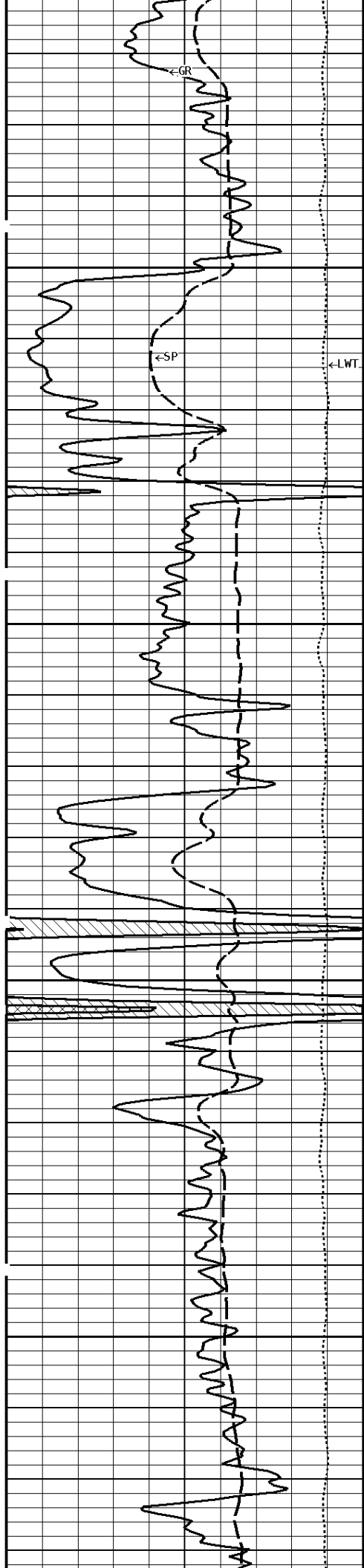




200

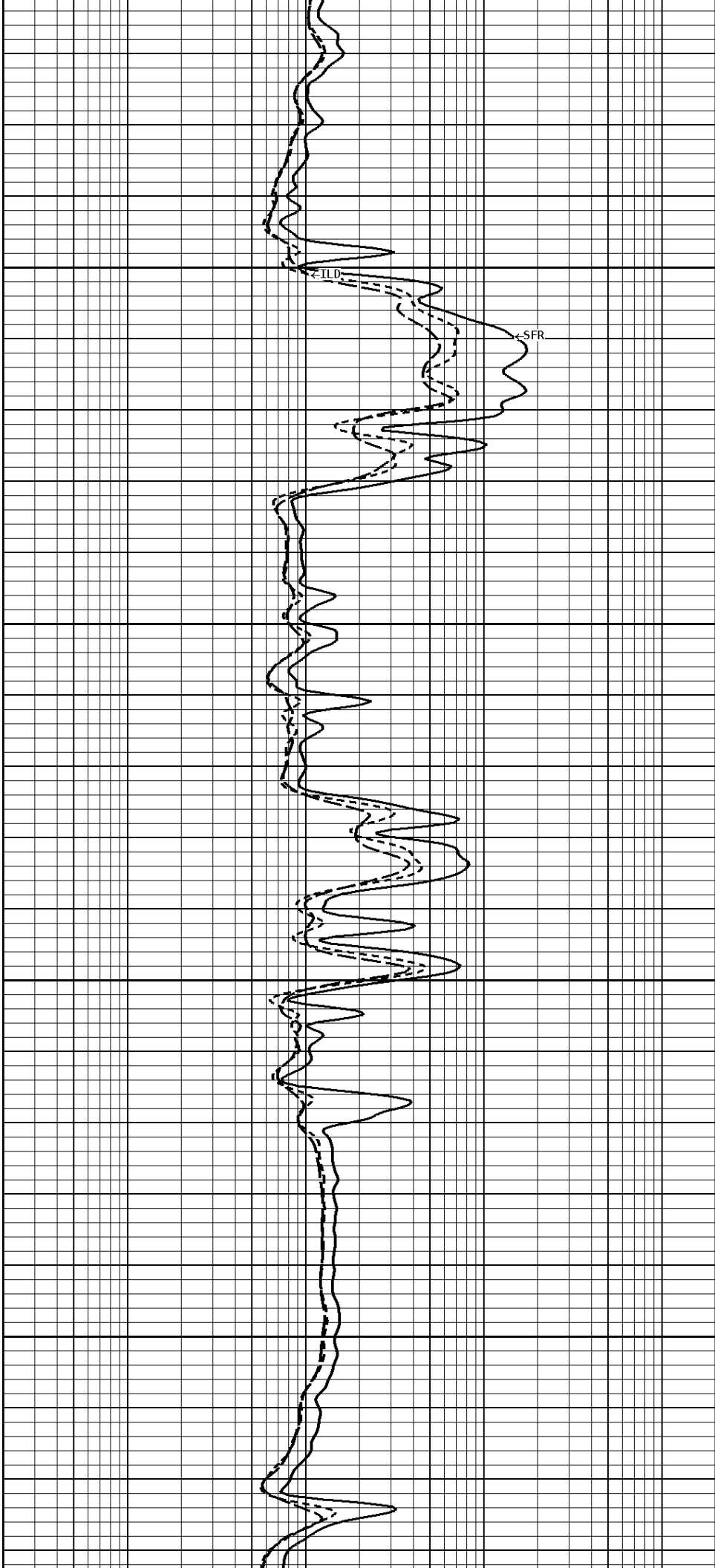
300

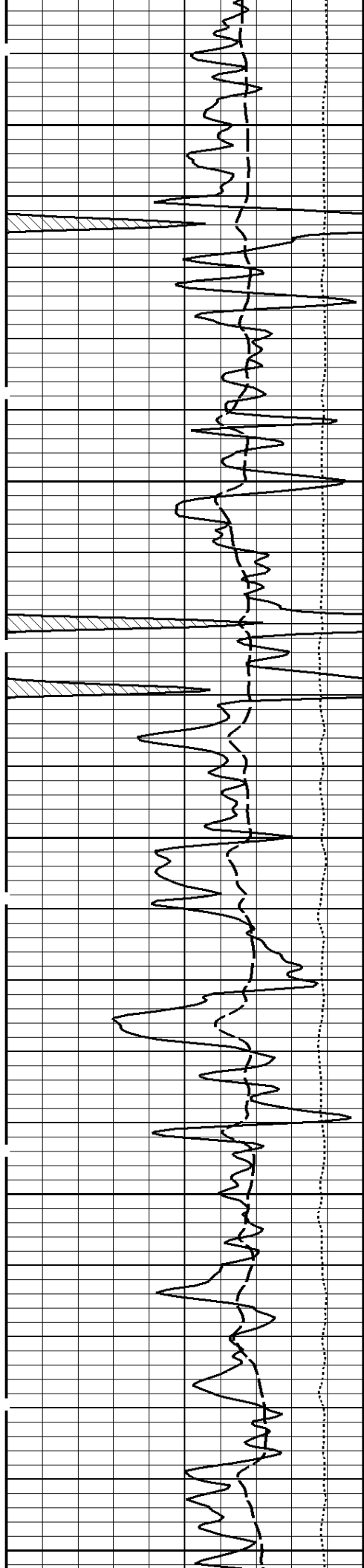




400

500

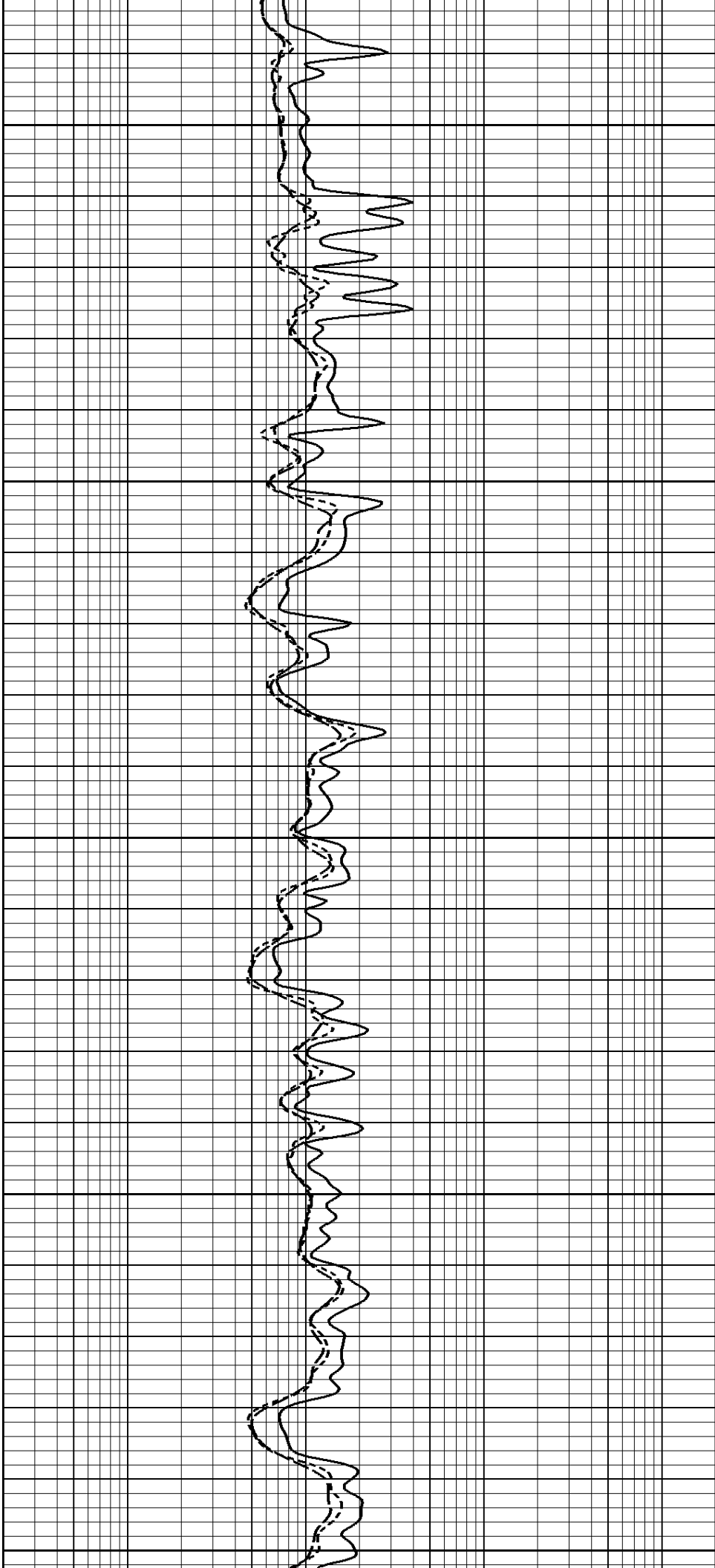




600

700

800



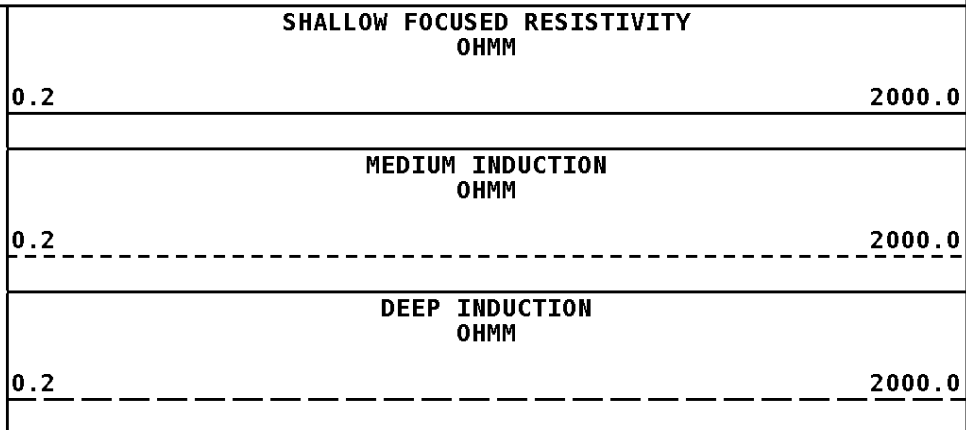
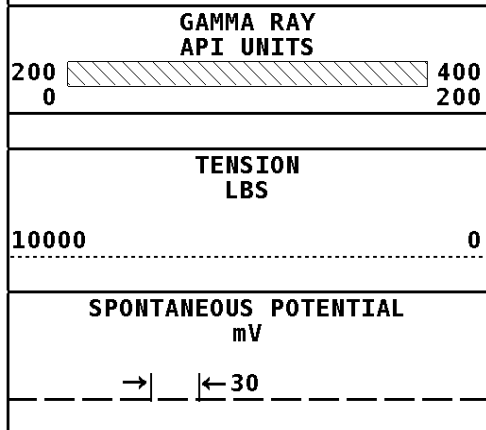
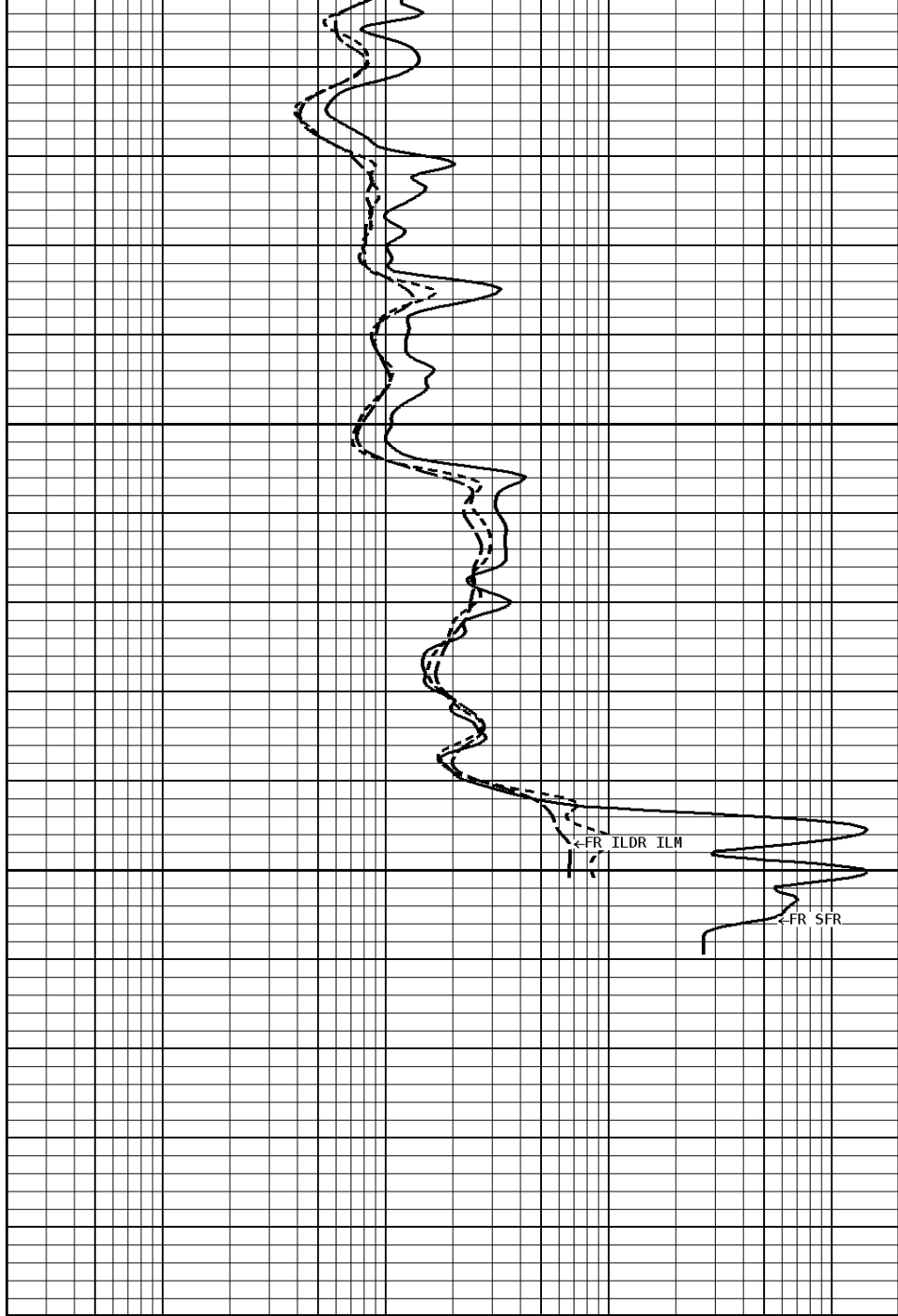


File #1.1.6

900

910

1:240 MAIN SECTION

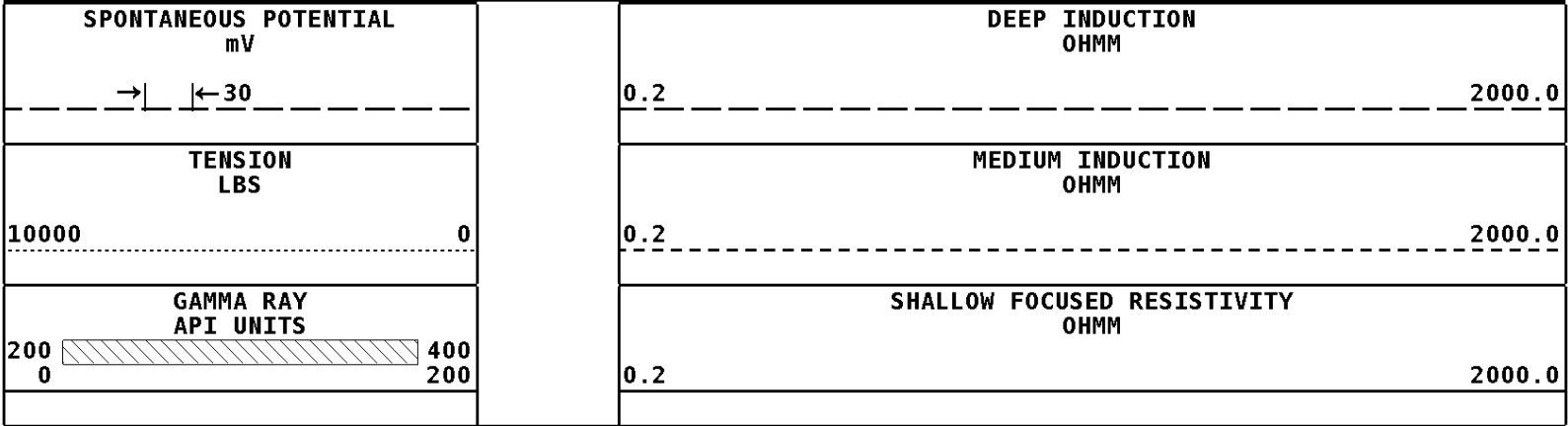


* Borehole Zone Factors *

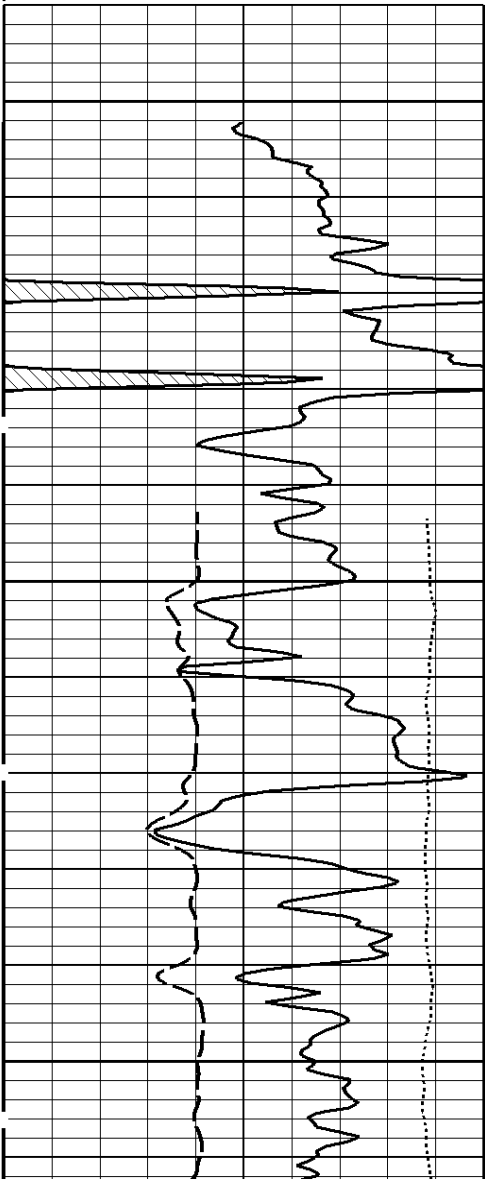
Zone 1 99999.0 to 0.0 Feet

Drill Bit Size	6.750	in
Casing Diameter	4.500	in
BHT Depth	910.000	ft
Borehole Temperature	81.0	degF
Temperature Gradient	1.00	DFHF
Resistivity Of Mud	10.000	ohm/m
Resistivity Of Mud Temperature	60.00	degF

Well File: RUN HOL 15-23C-3 APR 19 STK	Scale: 1:240	Format: DIL-240
Segment: V1.D1.S5 REPEAT	Acquired: 2013-04/19 19:08 3.3.0-11923	
Reference: 0	Processed: 2013-04/19 20:38 3.3.0-11923	

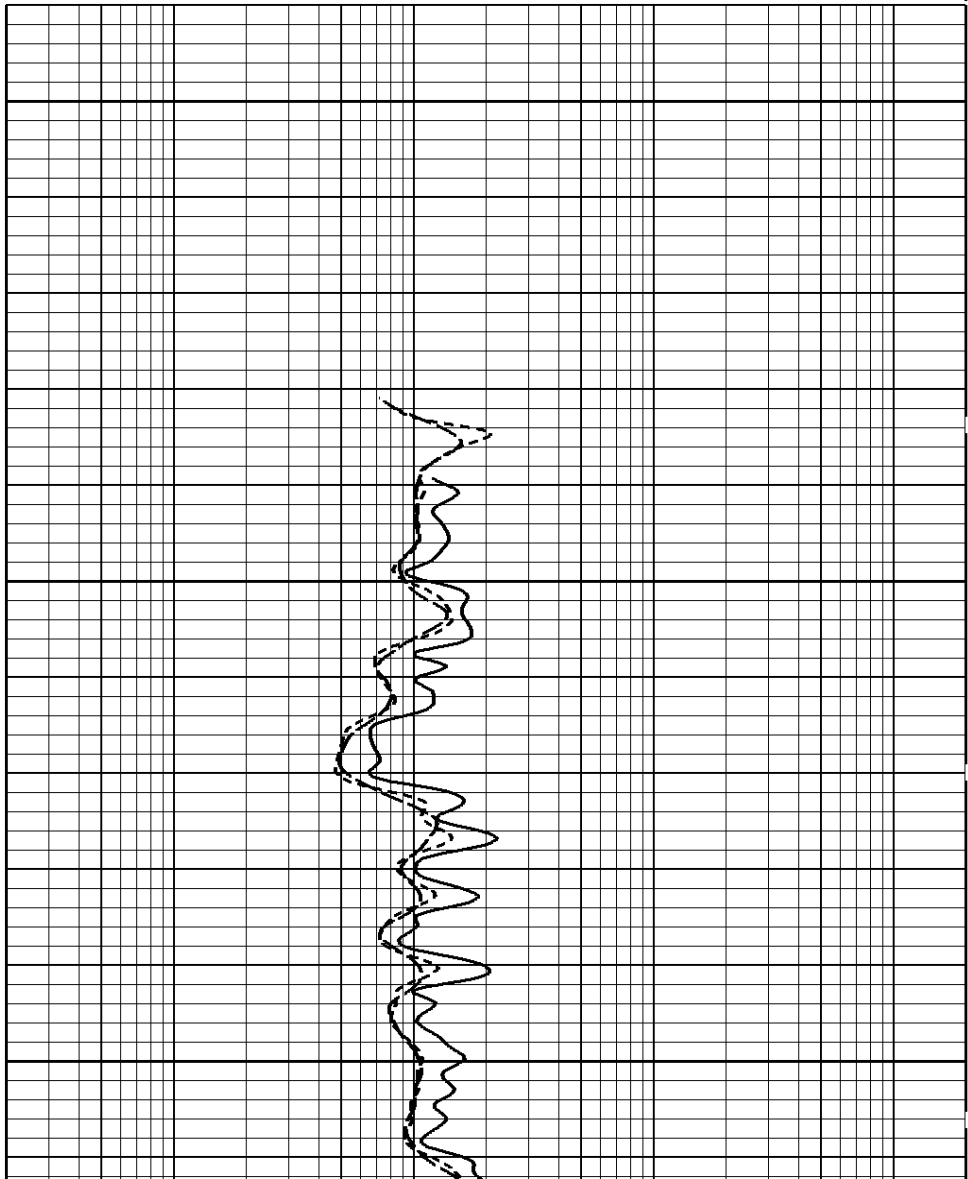


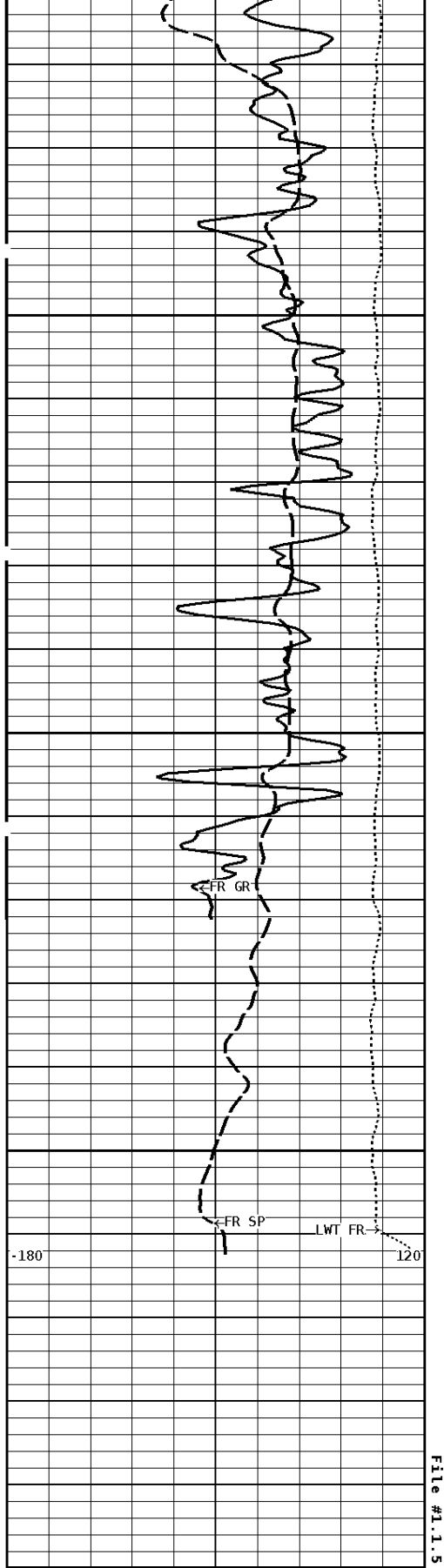
1:240 REPEAT SECTION



File #1.1.5

700



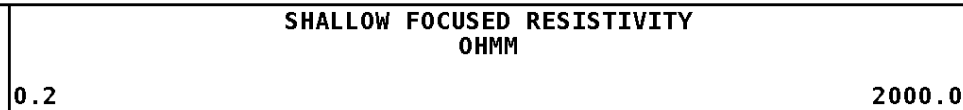
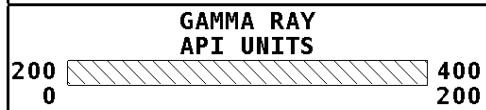
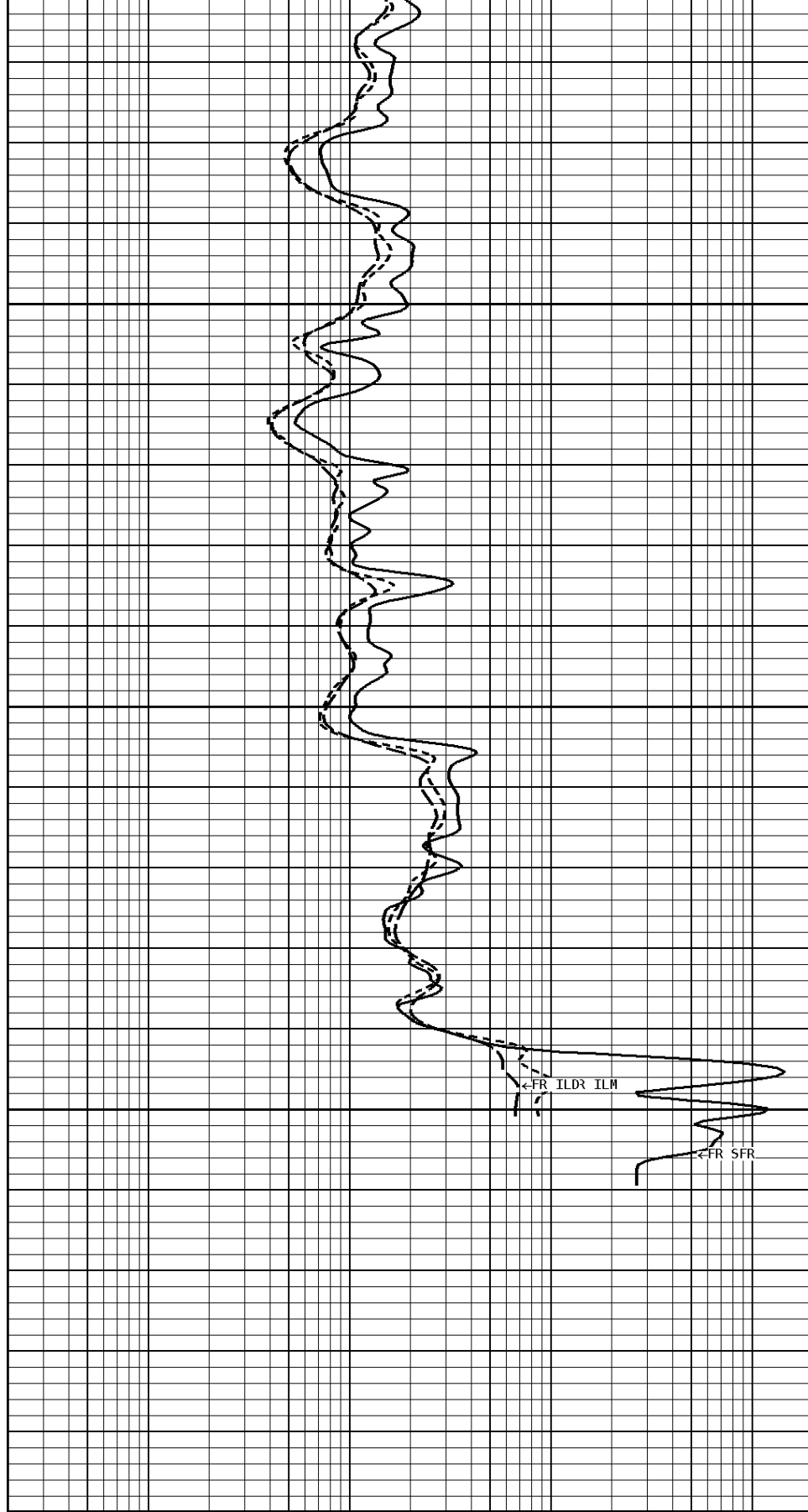


800

900

910

1:240 REPEAT SECTION



TENSION LBS	
10000	0
SPONTANEOUS POTENTIAL mV	
→	← 30

MEDIUM INDUCTION OHMM	
0.2	2000.0
DEEP INDUCTION OHMM	
0.2	2000.0

*** Borehole Zone Factors ***

Zone 1 99999.0 to 0.0 Feet		
Drill Bit Size	6.750	in
Casing Diameter	4.500	in
BHT Depth	910.000	ft
Borehole Temperature	81.0	degF
Temperature Gradient	1.00	DFHF
Resistivity Of Mud	10.000	ohm/m
Resistivity Of Mud Temperature	60.00	degF

*** Calibration Summary ***

Shop Calibration GRT-B						
Performed : 24-FEB-2013			Time : 17:32			
Sensor Suite : GR-GR5			ID : GRT-BA-15			
	Measured	Units	Calibrated	Units		
GR	Background	Jig	Jig	GRAPI		
	54	360	175			
Shop Calibration PIT-CA						
Performed : 28-MAR-2013			Time : 19:25			
Sensor Suite : P-IND-T			ID : PIT--AB-16			
Medium						
	Measured		Calibrated		Units	
	R	X	R	X		
Air	130818	130479	0.6	1.9	MMHOS	
Zero	131063	131065	8.7	19.8	MMHOS	
Reference	250227	249994	5008.7	5019.8	MMHOS	
Loop	151271	175111	2732.1	1023.3	MMHOS	
Sonde Error			-3.9	-8.4	MMHOS	
Cond			5008.7	5019.8	MMHOS	
Deep						
	Measured		Calibrated		Units	
	R	X	R	X		
Air	128771	131459	0.6	0.6	MMHOS	
Zero	131071	131072	49.8	-10.7	MMHOS	
Reference	232355	232787	2049.8	1989.3	MMHOS	
Loop	148897	176176	1281.2	478.5	MMHOS	
Sonde Error			-3.3	-4.2	MMHOS	
Cond			2049.8	1989.3	MMHOS	
Temperature						
	Measured		Calibrated		Units	
	Low	High	Low	High		
	16980.0	56920.0	70.0	350.0	DEGF	
Performed : 28-MAR-2013			Time : 19:25			
Sensor Suite : SFL			ID : PIT--AB-16			
Internal						
	Measured		Calibrated		Units	
	Zero	Reference	Zero	Reference		
Im	32778.3	49658.0	0.0	7028.0	uA	
Ib	34514.0	50740.3	0.0	1750.0	mA	
MOM1	32782.7	57729.2	0.0	175.0	mV	
Equivalent SFL				43.97	OHMM	
Performed : 28-MAR-2013			Time : 19:26			
Sensor Suite : P-SP			ID : PIT--AB-16			
Internal						
	Measured		Calibrated		Units	
	Zero	Reference	Zero	Reference		

Well File: RUN HOL 15-23C-3 APR 19 STK

Scale: 1:1200 Format: DIL1200

Segment: V1.D1.S6 MAIN

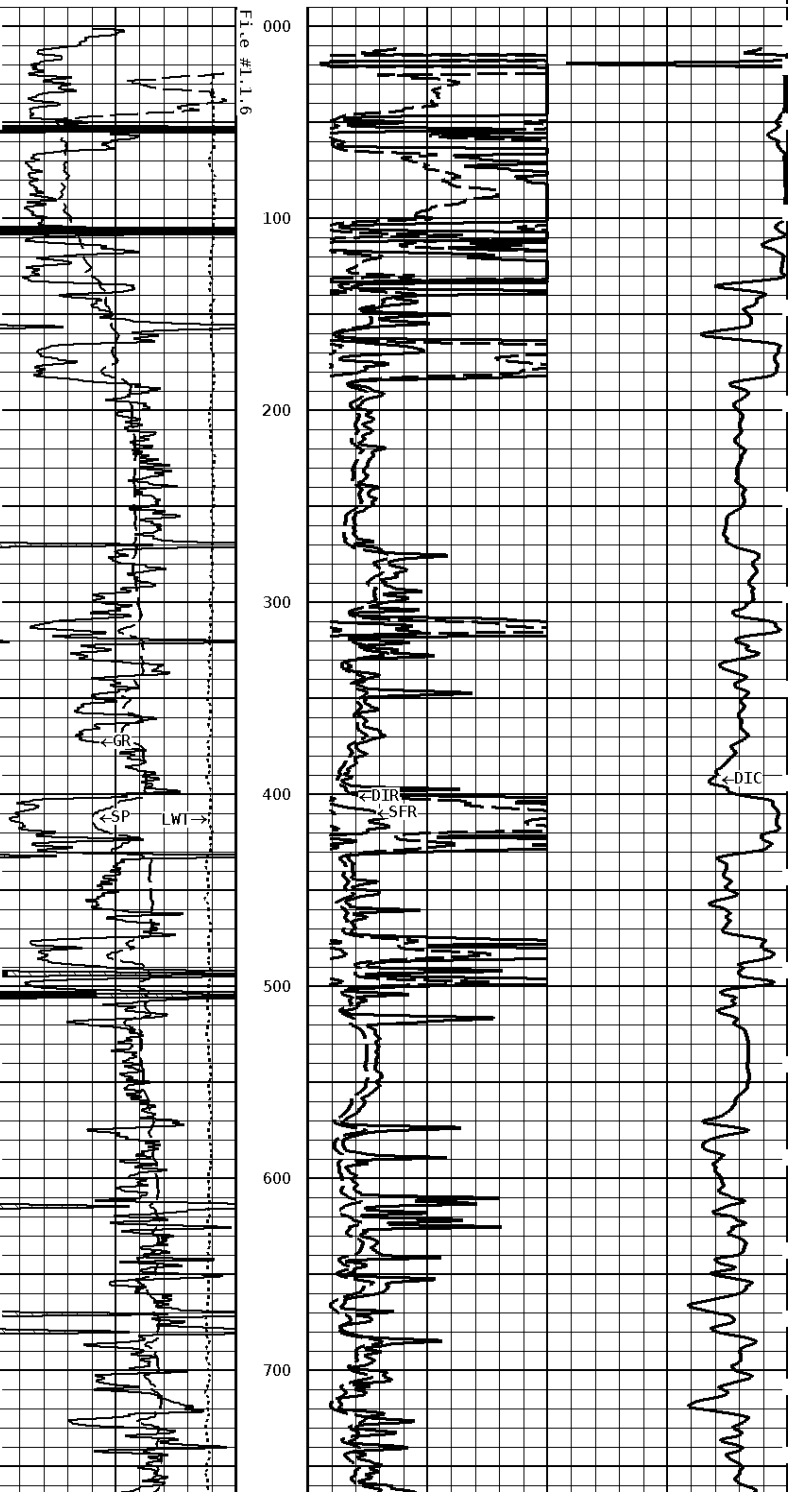
Acquired: 2013-04/19 19:22 3.3.0-11923

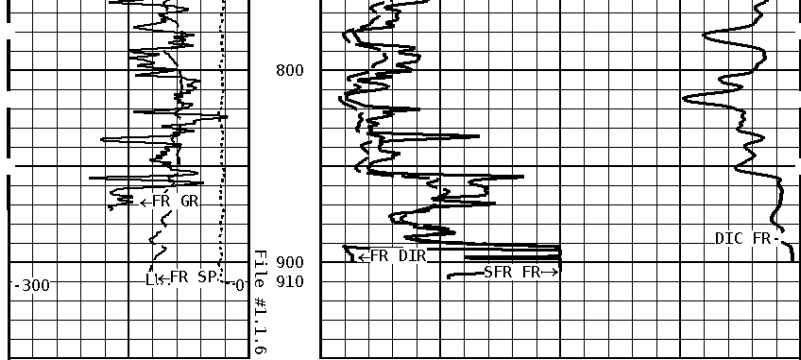
Reference: 0

Processed: 2013-04/19 20:38 3.3.0-11923

TENSION LBS 10000 0	DEEP INDUCTION OHMM 0.0 500.0 0.0 50.0
SPONTANEOUS POTENTIAL mV → ← 30	SHALLOW FOCUSED OHMM 0.0 500.0 0.0 50.0
GAMMA RAY API UNITS 200 400 0 200	DEEP CONDUCTIVITY MHMO 2000 1000 1000 0

1:1200 MAIN SECTION





GAMMA RAY API UNITS 200 0 400 200	DEEP CONDUCTIVITY MHO 2000 1000 1000 0
SPONTANEOUS POTENTIAL mV → ← 30	SHALLOW FOCUSED OHMM 0.0 500.0 0.0 50.0
TENSION LBS 10000 0	DEEP INDUCTION OHMM 0.0 500.0 0.0 50.0

 Tucker ENERGY SERVICES	Company: RUNNING FOXES PETROLEUM
	Well: HOLEMAN #15-23C-3
	Location: 165' FSL & 2475' FEL
	Logged: 04-19-2013
	K.B. Elev: 0.0 Ft